

INTERNATIONAL SEARCH REPORT

Inte	Application No
PCT/IB2005/050924	

A. CLASSIFICATION OF SUBJECT MATTER		
IPC 7	H03L7/087	H03L7/089
H03D13/00		

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H03L H03D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 081 572 A (FILIP ET AL) 27 June 2000 (2000-06-27) the whole document -----	1-8,14
X	US 6 055 286 A (WU ET AL) 25 April 2000 (2000-04-25) column 3, line 12 - column 5, line 25; figures 1,2,4,6,7 -----	1-8,14
X	DE 196 30 917 C1 (SIEMENS AG, 80333 MUENCHEN, DE) 26 March 1998 (1998-03-26) the whole document -----	1,2,5,6, 13
A	US 5 087 841 A (ROGERS ET AL) 11 February 1992 (1992-02-11) abstract; figure 3 -----	8

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the International filing date
- "L" document which may throw doubts on priority, claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the International filing date but later than the priority date claimed

- "T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed Invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed Invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

6 May 2005

Date of mailing of the International search report

05.08.2005

Name and mailing address of the ISA
European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 851 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Waters, D

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2005/050924

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

see annex

Remark on Protest

The additional search fees were accompanied by the applicant's protest.
 No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-8,13,14

A frequency error detector and associated method.

2. claims: 9-12,13,15

A charge pump and associated method.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB2005/050924

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 6081572	A	27-06-2000	EP	1116323 A1		18-07-2001
			JP	2002524897 T		06-08-2002
			WO	0013305 A1		09-03-2000
-----	-----	-----	-----	-----	-----	-----
US 6055286	A	25-04-2000	DE	19816124 A1		07-01-1999
			GB	2360157 A ,B		12-09-2001
			GB	2360409 A ,B		19-09-2001
			GB	2331646 A ,B		26-05-1999
			JP	3041686 B2		15-05-2000
			JP	11041097 A		12-02-1999
-----	-----	-----	-----	-----	-----	-----
DE 19630917	C1	26-03-1998	WO	9806179 A1		12-02-1998
			EP	0916189 A1		19-05-1999
-----	-----	-----	-----	-----	-----	-----
US 5087841	A	11-02-1992	JP	3441465 B2		02-09-2003
			JP	4227319 A		17-08-1992
-----	-----	-----	-----	-----	-----	-----

VIII-2-1	<p>Declaration: Entitlement to apply for and be granted a patent</p> <p>Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)), in a case where the declaration under Rule 4.17(iv) is not appropriate;</p> <p>Name (LAST, First)</p>	<p>in relation to this international application</p> <p>KONINKLIJKE PHILIPS ELECTRONICS N.V. is entitled to apply for and be granted a patent by virtue of the following:</p>
VIII-2-1(i) i)		KONINKLIJKE PHILIPS ELECTRONICS N.V. is entitled as employer of the inventor, SANDULEANU, Mihai, A., T.
VIII-2-1(i) ii)		KONINKLIJKE PHILIPS ELECTRONICS N.V. is entitled as employer of the inventor, STIKVOORT, Eduard, F.
VIII-2-1(i) x)	This declaration is made for the purposes of:	all designations except the designation of the United States of America